

What is claimed is:

1. A method for centralizing localized e-commerce using a virtual city application that provides to users an interface, comprising:

5 creating virtual representations of stores in the interface in which local merchants are allowed to sell goods and services;

10 providing the users access to the virtual representations of stores, wherein the users are allowed to place items that are for sale in the virtual representations of stores into a single virtual shopping cart; and

processing payment for the items in the virtual shopping cart using the virtual city application.

2. The method defined in claim 1, further comprising creating virtual representations of stores in the interface in which web-based merchants are allowed to sell goods and services.

3. The method defined in claim 1, wherein creating virtual representations of stores comprises digitizing images of storefronts and images of stores' interiors.

4. The method defined in claim 1, wherein processing payment comprises:

accessing payment information for the users from a database;

5 receiving funds from the users in payment for the items in the virtual shopping cart based on the payment information; and

placing an order for the items with the respective local merchants.

5. The method defined in claim 4, further comprising:

acquiring revenue by retaining a commission from the funds received; and

5 paying the respective local merchants the funds received less the commission retained.

6. The method defined in claim 1, wherein providing users access comprises:

allowing the users to access the virtual city application via a communications network;

5 displaying the virtual city application interface to the users; and

enabling the users to navigate among virtual city block images viewable via the virtual city application interface.

7. The method defined in claim 1, further comprising creating the virtual representations of stores for the respective local merchants.

8. The method defined in claim 1, further comprising acquiring revenue by charging the users a fee for use of the virtual city application.

9. The method defined in claim 1, further comprising acquiring customer information from the users prior to the processing of payment, wherein the acquisition of the customer information occurs only  
5 once, and wherein the customer information is used for subsequent purchases made using the virtual city application.

10. The method defined in claim 9 wherein the customer information comprises payment information.

11. A system for centralizing localized e-commerce using a virtual city application that provides to users an interface, comprising:

means for creating virtual  
5 representations of stores in the interface in which local merchants are allowed to sell goods and services;  
means for providing the users access to the virtual representations of stores, wherein the users are allowed to place items that are for sale in  
10 the virtual representations of stores into a single virtual shopping cart; and  
means for processing payment for the items in the virtual shopping cart using the virtual city application.

12. The system defined in claim 11, further comprising means for creating virtual representations of stores in the interface in which web-based merchants are allowed to sell goods and services.

13. The system defined in claim 11, wherein means for creating virtual representations of stores comprises means for digitizing images of storefronts and images of stores' interiors.

14. The system defined in claim 11, wherein means for processing payment comprises:

means for accessing payment information for the users from a database;

5 means for receiving funds from the users in payment for the items in the virtual shopping cart based on the payment information; and

means for placing an order for the items with the respective local merchants.

15. The system defined in claim 14, further comprising:

means for acquiring revenue by retaining a commission from the funds received; and

5 means for paying the respective local merchants the funds received less the commission retained.

16. The system defined in claim 11, wherein means for providing users access comprises:

means for allowing the users to access the virtual city application via a communications  
5 network;

means for displaying the virtual city application interface to the users; and

means for enabling the users to navigate among virtual city block images viewable via the  
10 virtual city application interface.

17. The system defined in claim 11, further comprising means for creating the virtual representations of stores for the respective local merchants.

18. The system defined in claim 11, further comprising means for acquiring revenue by charging the users a fee for use of the virtual city application.

19. The system defined in claim 11, further comprising means for acquiring customer information from the users prior to the processing of payment, wherein the acquisition of the customer information  
5 occurs only once, and wherein the customer information is used for subsequent purchases made using the virtual city application.

20. The system defined in claim 19 wherein the customer information comprises payment information.

21. A system for centralizing localized e-commerce using a virtual city application that provides to users an interface, comprising:

a central site at which virtual  
5 representations of stores are created for use in the interface in which local merchants are allowed to sell goods and services;

a data server configured to provide the users access to the virtual representations of stores,  
10 wherein the users are allowed to place items that are for sale in the virtual representations of stores into a single virtual shopping cart; and

hardware at the central site configured  
to process payment for the items in the virtual  
15 shopping cart using the virtual city application.

22. The system defined in claim 21, further  
comprising hardware at the central site configured to  
create virtual representations of stores in the  
interface in which web-based merchants are allowed to  
5 sell goods and services.

23. The system defined in claim 21, further  
comprising hardware at the central site configured to  
digitize images of storefronts and images of stores'  
interiors.

24. The system defined in claim 21, further  
comprising:

an information database that stores  
payment information for the users;

5 a communications network that is used to  
transfer funds for payment for the items in the virtual  
shopping cart using the payment information; and

hardware at the central site configured  
to place an order for the items with the respective  
10 local merchants.

25. The system defined in claim 21, further  
comprising:

a communications network configured to  
allow the users to access the virtual city application;

5 graphics processing and display hardware  
configured to display the virtual city application  
interface to the users; and

user control hardware configured to  
enable the users to navigate among virtual city block  
10 images viewable via the virtual city application  
interface.

26. The system defined in claim 21, further  
comprising hardware at the central site configured to  
create the virtual representations of stores for the  
respective local merchants.

27. The system defined in claim 21, further  
comprising hardware at the central site configured to  
acquire customer information from the users prior to  
the processing of payment, wherein the acquisition of  
5 the customer information occurs only once, and wherein  
the customer information is used for subsequent  
purchases made using the virtual city application.

28. The system defined in claim 27, wherein  
the customer information comprises payment information.

29. A method for providing a user an  
interactive virtual representation of a city via a  
5 communications network, comprising:  
storing images of substantially most  
city blocks making up the city in a database;  
linking the images to one another in  
substantially the same way the corresponding city  
10 blocks are linked; and  
allowing the user to navigate among the  
city blocks.

30. The method defined in claim 29, further comprising inserting embedded advertisements within the images.

31. The method defined in claim 29, further comprising:

allowing the user to select areas of the images; and

5 performing an action upon the user selecting one of the areas.

32. The method defined in claim 31, wherein performing an action comprises displaying additional information.

33. The method defined in claim 29, further comprising:

displaying storefronts in the images;

5 allowing the user to select at least one of the storefronts; and

displaying a virtual representation of the inside of a store corresponding to a selected storefront.

34. The method defined in claim 29, wherein allowing the user to navigate comprises:

allowing the user to select a particular direction of a first city block; and

5 displaying a second city block that is linked to the first city block.

35. The method defined in claim 29, further comprising:

Patented March 20, 2007



displaying an image of a map having  
selectable areas;

5                   allowing the user to select the  
selectable areas; and

                  displaying a city block that corresponds  
to an area selected from the map.

36. A system for providing a user an  
interactive virtual representation of a city via a  
communications network, comprising:

                  a database in which images of  
5 substantially most city blocks making up the city are  
stored;

                  hardware configured to link the images  
to one another in substantially the same way the  
corresponding city blocks are linked; and

10                   hardware configured to allow the user to  
navigate among the city blocks.

37. The system defined in claim 36, further  
comprising graphics editing equipment that is used to  
insert embedded advertisements within the images.

38. The system defined in claim 36, further  
comprising hardware configured to:

                  allow the user to select areas of the  
images; and

5                   perform an action upon the user  
selecting one of the areas.

39. The system defined in claim 38, wherein  
the hardware is further configured to display  
additional information.

Patented September 2, 1992

40. The system defined in claim 36, further comprising hardware configured to:

display storefronts in the images;

allow the user to select at least one of  
5 the storefronts; and

display a virtual representation of the inside of a store corresponding to a selected storefront.

41. The system defined in claim 36, further comprising hardware configured to:

allow the user to select a particular direction of a first city block; and

5 display a second city block that is linked to the first city block.

42. The system defined in claim 36, further comprising hardware configured to:

display an image of a map having selectable areas;

5 allow the user to select the selectable areas; and

display a city block that corresponds to an area selected from the map.

43. A method for using a linear programming model to provide automated services based on a plurality of variables, comprising:

using the linear programming model to  
5 process a user's preferences, schedule, and requests; and

performing actions based on the linear programming model over a communications network.

44. The method defined in claim 43, wherein  
the performing actions is selected from a group  
consisting of making appointments, placing orders for  
items, placing orders for services, scheduling  
5 deliveries, and any combination thereof.

Patented: 1998-08-11